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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,940	09/25/2003	Sanjay D. Kamat	S. KAMAT 3-5	2055
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HITT GAINES, PC ALCATEL-LUCENT PO BOX 832570 RICHARDSON, TX 75083				
EXAMINER				
BILGRAMI, ASGHAR H				
ART UNIT		PAPER NUMBER		
2443				
NOTIFICATION DATE		DELIVERY MODE		
10/27/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@hittgaines.com

Office Action Summary

Application No.

10/670,940

Applicant(s)

KAMAT ET AL.

Examiner

ASGHAR BILGRAMI

Art Unit

2443

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Independent claims 1, 8 & 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose that the "said process **removes the domain from consideration**" as claimed instead the specification on page4, paragraph.8, lines 13-5 discloses that disqualification logic, associated with the RIB receive **disqualifies alternative routes** to the domain based on indications **not the domain itself** as claimed. The only logical **assumption in light of the disclosure** for this limitation seems to be "removing said **alternative routes** from consideration by said process". Appropriate correction is required.
3. Corresponding dependent claims of independent claims 1, 8 & 15 are also rejected under 35 U.S.C. 112, first paragraph by virtue of their dependence.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pelavin et al (U.S.6,393,486) and Feldmann (U.S.Pub No. 2002/0021675 A1).

6. As per claims 1, 8 & 15 Pelavin disclosed a border gateway router, comprising: at least three network interfaces (figure11 shows at least three or more routers R1 through R6); routing table memory that contains a table of active routes ; routing circuitry, coupled to said at least three network interfaces and said routing table memory (col.9, lines 64-67 & col.10, lines 1-32), that routes packets among said at least three network interfaces according to a path vector routing protocol **{BGP is properly classified as a path vector protocol}** based on addresses contained in said at least three network interfaces and said table of active routes; route optimization circuitry, coupled to said routing table memory, that loads said active routes into said routing table memory based on an analysis of router information base (RIB) data (col.23, lines 53-67 & col.24,

lines 1-11, **RIB is also called routing table**); a RIB data receiver, coupled to said route optimization circuitry, that receives RIB data including: an update of an active route to a domain in said network that causes said active route to become a withdrawn route as a result of said active route being lost (col.39, lines 45-67 & col.40, lines 1-29). Although Pelavin disclosed that assigning loopback addresses to a router {Autonomous System} is a common technique through which a host can connect to the router; an advantage of a loopback address over the address of a physical port, is that a "loopback cannot fail" (col.36, lines 22-43). However Pelavin did not explicitly disclose an active route to a domain becoming a withdrawn route on an indication based on loopback address associated with the nodes {autonomous systems} through which the said withdrawn route passed, of a reachability of said each of said nodes, and disqualifies alternative routes to said domain based on said indications prior to an alternative route convergence process and removing said domain from consideration by said process. In the same filed of endeavor Feldmann disclosed an active route to a domain becoming a withdrawn route on an indication based on loopback address associated with the nodes {autonomous systems} through which the said withdrawn route passed, of a reachability of said each of said nodes and route disqualification logic, associated with said RIB data receiver, that disqualifies alternate routes to said domain based on said indication prior to an alternative route convergence process {prior to the final selection of a route} and removing said domain from consideration by said process (paragraph.36) {For examining purposes examiner has assumed that his limitation is basically describing that the alternate routes to a domain are disqualified before they are selected}.

{Feldmann is discloses that the AS (node) learns about destination prefixes via dynamic routing protocols, such as BGP. BGP is a distance vector protocol that constructs paths by successively propagating reachability information. Each BGP advertisement concerns a particular prefix and includes a list of ASes (nodes) along the path (paragraph.20 of applicant's specification). BGP policies can filter unwanted advertisements and assign local preferences based on variety of attributes. AS may employ techniques such as route reflectors and confederation to avoid overhead. Attributes include originating router of a BGP session and remote end point which can is identified by IP address which may correspond to a particular interface or Loopback address}.

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated the loopback address functionality as disclosed by Feldmann in the border gateway router disclosed by Pelvain in order to make the border gateway router more resilient resulting in a more stable and robust router.

7. As per claims 2, 9 & 16 Pelvan-Feldmann disclosed the system as recited in claim 1 wherein said route disqualification logic disqualifies all alternative routes to said domain if all of said nodes are indicated as reachable (Feldmann, paragraph.36).

8. As per claims 3, 4, 10, 19, 11 & 17 Pelvan-Feldmann disclosed the border gateway router as recited in Claim 15 wherein said route disqualification logic disqualifies alternative routes to said domain that pass through unreachable ones of

said autonomous systems (Feldmann, paragraph.36).

9. As per claims 5, 12 & 18 the system as recited in Claim 1 wherein said loopback 2 addresses are distinguishable from ordinary network addresses (Feldmann, paragraph.30).

10. As per claims 6, 13 & 19 the system as recited in Claim 5 wherein said loopback 2 addresses are formed in accordance with a Border Gateway Protocol 3 extension (Feldmann, paragraph.36).

11. As per claims 7, 14 & 20 the system as recited in Claim 5 wherein said loopback 2 addresses are assigned canonically (Feldmann, paragraph.24).

Response to Arguments

12. Applicant's arguments filed 8/10/2009 have been fully considered but they are not persuasive.

13. Applicant argued that the prior art fails to teach the newly amended limitation which states that "route disqualification logic, associated with said RIB data receiver, that disqualifies alternate routes to said domain based on said indication prior to an alternative route convergence process and removing said domain from consideration by said process". Please see 112 rejection online of this action. The only logical assumption to this limitation seems to be "removing said alternative routes from consideration by said process".

As to applicant's arguments the disclosure in applicant's specification silent with regards "to removing the said domain from consideration by said process".

Additionally loopback addressees are well known and widely used for node management purposes because they are always up. Applicant's claims are merely describing in general how an optimum route is determined from acquiring RIB data of the connected nodes.

14. Finally examiner again advises the applicant to significantly narrow the claim language by incorporating more details regarding the "loopback address(s)" and "RIB

data" in determining path/route disqualification/avoidance in light of applicant's disclosure to further the prosecution of this case in a positive direction.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
16. Lee (U.S. 6,985,959 B1) disclosed constraint route dissemination using distributed route exchanges.
17. Gan et al (U.S. 7,457,233 B1) disclosed method and apparatus for fast reroute in a connection-oriented network.
18. Kano (7,133,358 B2) disclosed Failure control unit.
19. Medard et al (U.S. 6,047,331) disclosed method and apparatus for automatic protection switching.
20. Paterson et al (U.S. 6,154,448) disclosed next hop loopback.
21. Finn et al (U.S. 6,728,205 B1) disclosed method and apparatus for automatic protection switching.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASGHAR BILGRAMI whose telephone number is (571)272-3907. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia L.M. Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. B./
Examiner, Art Unit 2443

/J Bret Dennison/
Primary Examiner, Art Unit 2443